



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/739,228  | 12/17/2003  | Michael L. Lamb      | SJO920030054US1     | 1120             |
| 46917 7590 08/06/2009<br>KONRAD RAYNES & VICTOR, LLP.<br>ATTN: IBM37<br>315 SOUTH BEVERLY DRIVE, SUITE 210<br>BEVERLY HILLS, CA 90212 |             |                      |                     |                  |
| EXAMINER  |             |                      |                     |                  |
| SAEED, USMAAN   |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
| 2166  |             |                      |                     |                  |
| NOTIFICATION DATE   |             | DELIVERY MODE        |                     |                  |
| 08/06/2009  |             | ELECTRONIC           |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

krvuspto@ipmatters.com

### Office Action Summary

**Application No.**

10/739,228

**Applicant(s)**

LAMB ET AL.

**Examiner**

USMAAN SAEED

**Art Unit**

2166

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24, 25, 27, 29, 31 and 35-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24, 25, 27, 29, 31 and 35-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Receipt of Applicant's Amendment, filed 04/21/2009 is acknowledged.

Claims 1-23 are cancelled and claims 24-25, 27, 29, 31, 31-36. Claims 37-49 are newly added.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 24-25, 27, 29, 31, 35-49 are rejected under 35 U.S.C 103(a) as being unpatentable over **Hiltgen et al. (Hiltgen hereinafter)** (US PGPub No. 20040181529) in view of **Benhase et al. (Benhase hereinafter)** (U.S. PG Pub No. 20040243945).

With respect to claim 37, **Hiltgen** teaches **a computer implemented method for responding to an inquiry, comprising the following operations:**

**“receiving a single inquiry from a CIM client application including a unique ID of a top level storage entity, wherein the top level storage entity identified by the unique ID includes components associated as a component of the top level storage entity and a subcomponent of at least one component”** as (Hiltgen Paragraphs 0006, 0019, 0027 and claim 9).

**“using CIM client APIs in response to the single inquiry to obtain information from a CIMOM using the unique ID of the top level storage entity to obtain information on components and subcomponents of the top level storage entity from multiple CIM objects on the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM”** as (Hiltgen Paragraphs 0018-0019, 0027).

**“creating a plurality of storage objects in a computer readable storage medium including information on the top level storage entity and components and subcomponents”** as (Hiltgen Abstract).

**“populating the created storage objects with information received from the CIMOM including identifying the entities in the top level storage entity,**

**components and subcomponents, and wherein properties of each storage object map directly to properties of at least one CIM class used to represent the top level storage entity and components and subcomponents of the top level storage entity in the CIMOM” as (Hiltgen Abstract and Paragraphs 0006, 0019, 0023, 0025 and 0027).**

**“returning information on the storage objects to the CIM client application that sent the inquiry” as (Hiltgen Abstract and Paragraph 0006).**

Hiltgen teaches the elements of claim 1 as noted above but does not explicitly teaches **“parent-child relationships among the top level storage entity and the components and subcomponents of the top level storage entity.”**

However, Benhase teaches **“parent-child relationships among the top level storage entity and the components and subcomponents of the top level storage entity” as (Benhase Abstract, and figure 4).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because Benhase's teaching would have allowed Hiltgen to provide information for a selected one of the storage resources, such as information regarding copy relationships with other storage resources. The nodes may be active to enable a user to obtain properties of the associated storage resource, such as resource size and type.

With respect to claim 24, Hiltgen teaches **“wherein the plurality of storage entity objects include at least one of a disk array system, storage pool, volume,**

**host system, Fibre Channel; Port, and disk Disk Array System, Storage Pool, Volume, Host System, FCPort, and Disk, objects” as (Hiltgen Paragraph 0019).**

With respect to claim 25, **Hiltgen** does not explicitly teaches “**wherein the a top level storage entity comprises the disk array system, and wherein each object other than the disk array system is associated as a component of the disk array system object or a subcomponent of one of the components of the disk array system object.**”

However, **Benhase** teaches “**wherein the a top level storage entity comprises the disk array system, and wherein each object other than the disk array system is associated as a component of the disk array system object or a subcomponent of one of the components of the disk array system object**” as (**Benhase** Figure 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because **Benhase’s** teaching would have allowed **Hiltgen** to provide information for a selected one of the storage resources, such as information regarding copy relationships with other storage resources. The nodes may be active to enable a user to obtain properties of the associated storage resource, such as resource size and type.

With respect to claim 27, **Hiltgen** does not explicitly teaches “**wherein the creating operation comprises creating a plurality of storage objects and wherein**

**the storage objects have associations to each other that are consistent with corresponding storage entities' relationships modeled in a SMI/Bluefin profile."**

However **Benhase** teaches "**wherein the creating operation comprises creating a plurality of storage objects and wherein the storage objects have associations to each other that are consistent with corresponding storage entities' relationships modeled in a SMI/Bluefin profile**" as (**Benhase** Figures 4, 5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because **Benhase's** teaching would have allowed **Hiltgen** to provide information for a selected one of the storage resources, such as information regarding copy relationships with other storage resources. The nodes may be active to enable a user to obtain properties of the associated storage resource, such as resource size and type.

With respect to claim 29, **Hiltgen** teaches "**wherein the inquiry is received from a SRM CIM Client Application**" as (**Hiltgen** Figure 1).

With respect to claim 31, **Hiltgen** teaches "**wherein the inquiry includes the unique ID for a disk array Storage Pool**" as (**Hiltgen** Paragraphs 0006, 0019, 0027 and claim 9).

**Hiltgen** teaches the elements of claim 31 as noted above but does not explicitly teaches "**wherein the components and subcomponents for which information is obtained comprise storage pools and disks, and wherein the relationships**

**indicate a relationship of storage pools to the disk array system and of the disks to the storage pools.”**

However, **Benhase** discloses **“wherein the components and subcomponents for which information is obtained comprise storage pools and disks, and wherein the relationships indicate a relationship of storage pools to the disk array system and of the disks to the storage pools”** as (**Benhase** Figure 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of the cited references because **Benhase's** teaching would have allowed **Hiltgen** to provide information for a selected one of the storage resources, such as information regarding copy relationships with other storage resources. The nodes may be active to enable a user to obtain properties of the associated storage resource, such as resource size and type.

With respect to claim 35, **Hiltgen** teaches **“wherein the inquiry includes the unique ID of a component storage entity, and wherein the receiving, obtaining, creating, populating, and sending operations are repeated to obtain information concerning the component storage entity and subcomponents of the component storage entity”** as (**Hiltgen** Paragraphs 0026, 0031).

With respect to claim 36, **Hiltgen** teaches **“wherein the inquiry includes the unique ID of a component storage entity, and wherein the receiving, obtaining, creating, populating, and sending operations are repeated to obtain information**

**concerning the component storage entity and the component storage entity's relationships to other components” as (Hiltgen Paragraphs 0026, 0031).**

Claims 38-49 are essentially the same as claim 24-25, 27, 29, 31, 35-37 except that they recite claimed invention as a system and a program product, and are rejected for the same reasons as applied hereinabove.

### ***Response to Arguments***

3. Applicant's arguments filed on 04/21/2009 have been considered but are moot in view of the new ground(s) of rejection.

In these arguments applicant relies on the amended claims and not the original ones. See above rejections for response to arguments.

Examiner has withdrawn the previous 103 rejection and has provided a new 103 rejection with new references Hiltgen et al. US PG Pub No, 20040181529 and Benhase et al. U.S. PG Pub No. 20040243945.

### ***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact Information***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USMAAN SAEED whose telephone number is (571)272-4046. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571)272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Usmaan Saeed/  
Examiner, Art Unit 2166  
July 31, 2009

Usmaan Saeed  
Patent Examiner  
Art Unit: 2166

/Isaac M. Woo/

Primary Examiner, Art Unit 2166